

## EADS Delivers Complex and Critical Software with Integrity

"THANKS TO INTEGRITY, A PTC PRODUCT WE NOW KNOW AT ALL TIMES WHICH REQUIREMENTS ARE COVERED BY WHICH TESTS. AS A RESULT, WE SAVE AN ENORMOUS AMOUNT OF TIME AND ALWAYS KNOW WHERE WE STAND IN THE PROJECT,"

- RETO SCHNIEDERMEIER, EADS

### Company Overview

EADS is a world-leading aerospace corporation that includes companies like the aircraft manufacturer Airbus, the largest helicopter manufacturer worldwide, Eurocopter, and EADS Astrium, the European leader in space services with programs like Ariane and Galileo.

EADS employs approximately 116,000 people at more than 70 production locations, primarily in Germany, France, the United Kingdom and Spain, but also in the United States and Australia. The group maintains a global network of more than 30 representative offices to keep in close contact with customers.

### The Challenge

One product field of Defense Electronics focuses on Operations Support Systems (OSS), which support on-board systems and avionic devices. Operations Support Systems can be flexibly used as ground-based systems for planning, implementing and analyzing airborne operations.

They incorporate all aspects of networked operations from tactical geographic, deployment planning, mission and flight preparation and briefing, right through to deployment, gathering and supplying information and deployment debriefing.

Operations Support Systems are used for a wide variety of aircraft models. This results in a very high number of product types, which, in turn, has an influence on the development of the corresponding software. In order to be able to manage this variety of software properly, EADS sought a solution that controls the configuration process while also enabling integration into the existing DOORS requirements management tool, so as to support all changes in addition to requirements-based testing.



## The Solution

Integrity was the solution that met all these requirements. During the first step of a pilot phase, the existing data from EADS's own proprietary solution, "Razor", was transferred to Integrity. Subsequently, the change processes specified by EADS were stored, so that all change processes could be managed in Integrity within the shortest possible time. Developers at EADS readily embraced the software's flexibility and, with the support of PTC, were quickly able to produce build and release extensions themselves.

During the next stage, the existing test management template in Integrity was used to achieve a tailored implementation. The objective here was to enable requirements-based testing. For this purpose, Integrity was integrated into DOORS — once again by EADS developers.

All test requirements are now managed in Integrity, while the actual requirements are still captured in DOORS. Automated testing also runs smoothly since the existing tool, "Squish", is connected to Integrity by means of the ATEF (Automated Test Execution Framework).

A staging mechanism is also employed in the overall development cycle. With this mechanism, the processes are initially placed on a staging server for testing. Only if the tests are successful are the processes made live.

## The Results

By using the stored processes and authorization levels, all employees involved are now integrated into the respective process flows and can call up information about the current status of projects whenever needed. This also applies to remote production locations as all development activities are mapped in one single repository, regardless of where they take place or who implements them.

"During the data migration stage, Integrity proved a highly flexible system in terms of handling information from other tools," says Reto Schniedermeier, Product Manager Operations Support Systems at EADS. "We had the same positive experiences when DOORS was connected."

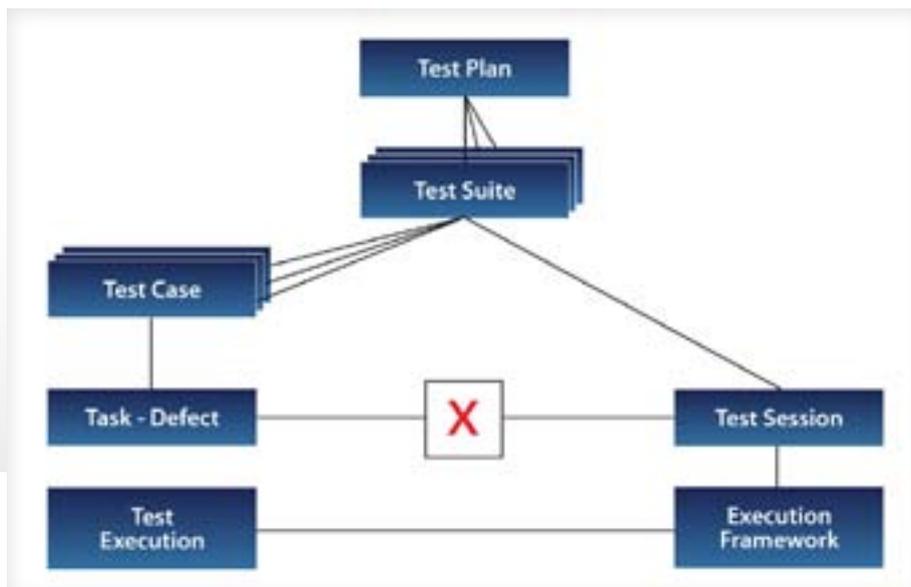


Fig. 1: Test management data model

Markus Müh, Head of OSS Systems Engineering, comments on the successful use of Integrity in application lifecycle management:

“Because the system documents all actions that have been carried out, we can analyze completed applications and find out, for example, how a certain release developed or who came to a certain decision and why. This is of paramount importance in our extremely security-conscious industry. By the same token, we can see what effects certain change requests would have and can therefore decide in the shortest time possible whether these requests should be granted or denied.”

Due to the high security requirements in the aerospace industry, comprehensive tests are indispensable before a new product is approved.

“Thanks to Integrity, we now know at all times which requirements are covered by which tests. As a result, we save an enormous amount of time and always know where we stand in the project,” summarizes Reto Schniedermeier.

According to Reto, EADS is still far from exploiting the full potential of Integrity. The corporation plans to fully integrate test management in order to increase productivity even more.

### Integrity Business Unit Locations

North America  
1 800 613 7535

United Kingdom  
+44 (0) 1252 453 400

Germany  
+49 (0) 711 3517 75 0

Asia Pacific  
+65 6830 8338

Japan  
+81 3 5422 9503

[integrityinfo@ptc.com](mailto:integrityinfo@ptc.com)

For more information visit:

<http://www.ptc.com/products/integrity>

© 2011, Parametric Technology Corporation (PTC). All rights reserved. Information concerning the benefits and results obtained by customers using PTC solutions is based upon the particular user's experience and testimonial, is furnished for informational use only, and should not be construed as a guarantee or commitment by PTC. Due to the varying degree of complexity of our customers' products and/or their design processes, typical or generally expected results are not available. PTC, the PTC Logo, Arbortext and all PTC product names and logos are trademarks or registered trademarks of PTC and/or its subsidiaries in the United States and in other countries. All other product or company names are property of their respective owners.

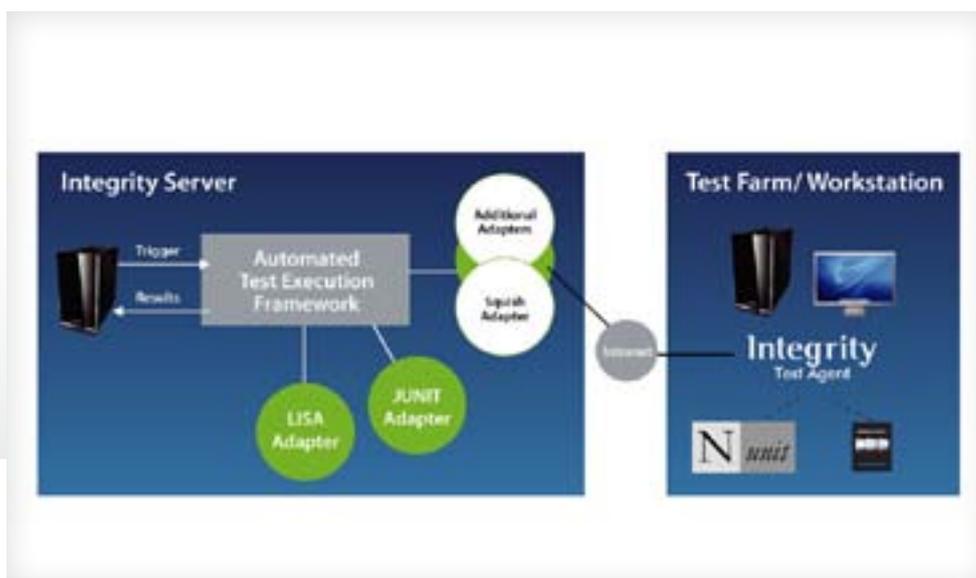


Fig. 2: Architecture of the solution used